

# Seth Cannon

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## Summary

Electrical Engineering student (GPA: 3.99) with experience in embedded systems, firmware development, and hardware/software integration. Led CubeSat flight computer project, directing STM32 firmware across sensors and telemetry subsystems. Skilled in C, Python, troubleshooting, and circuit analysis, with proven teamwork and leadership through hackathons and collaborative projects.

## Certifications, Skills

- Software Skills: LTSpice, Mathematica, Excel, STM32, C, C#, Python, STMCubeIDE
- Hardware and Lab: Breadboarding, Oscilloscope, Function Generator, Soldering.

## Projects

**Weather Balloon Satellite Prototype** September 2025 - Present  
*Flight Computer Lead* Rexburg, ID

- Designing a compact payload enclosure housing three custom PCB boards for data collection and communication.
- Engineered STM32 firmware in STMCubeIDE to self-initiate continuous logging of temperature, pressure, and humidity data, ensuring reliable sensor acquisition throughout 3+ hour flight operations.
- Directing a 4-member team as flight computer lead, organizing subsystem integration and developing firmware for dual STM32 boards to manage radio telemetry and sensor interfaces, while driving power-efficient system design.

**Arduino Self-Closing Box** November 2024 - December 2024  
*Intro To Electrical Engineering* Rexburg, ID

- Designed and debugged Arduino firmware to automate dual-servo actuation, learning iterative hardware tuning to achieve smooth synchronized motion.
- Performed hardware component sizing and iterative debugging to improve reliability and smooth actuation of 2 servos in sync.

**Hackathon Education Game** November 2024  
*IHack* Rexburg, ID

- Orchestrated program structure and team workflow during a 24-hour hackathon, contributing to Python coding and character design using Ollama.
- Fostered collaboration and kept a 4-member team focused and on schedule, resulting in a functional math education game within 24 hours.
- [https://github.com/dohmandjo/AI\\_Math\\_game](https://github.com/dohmandjo/AI_Math_game).

## Education

### Bachelor of Electrical Engineering

*Brigham Young University - Idaho*  
September 2024 - July 2027

- Relevant Coursework: Electric Circuit Analysis I, Electric Circuit Analysis II, Differential Equations, Engineering Statistics.

## Work Experience

**Counselor** June 2025 - August 2025

*For The Strength Of Youth* Multiple

- Mentored groups of 6-20 youth weekly, managing logistics, group schedules, and safety compliance.
- Led daily lesson planning, conflict mediation, and program oversight in dynamic, high-structure environments.

**Front Of House** March 2024 - September 2024

*Chick-Fil-A Razorback Road* Fayetteville, AR

- Functioned in a high-volume environment processing 200+ orders/hour while maintaining 98% accuracy.
- Collaborated with a team of 15+ to optimize customer flow and reduce bottlenecks during peak hours.